

IN THE SPECIFICATION:

Please insert the following at the beginning of page one of the present application.

CROSS REFERENCE TO RELATED APPLICATION

91 The present application is a divisional and claims priority of co-pending U.S. Ser. No. 09/682,914 filed October 31, 2001 and entitled "Method and Apparatus of Determining and Displaying a Helical Artifact Index."

IN THE CLAIMS:

Please cancel claims 1-17 and 31-37.

Please add the following new claims:

38. (New) A method of generating a helical artifact score, the method comprising:

acquiring imaging data of a subject, the imaging data including a plurality of pixels;

partitioning the plurality of pixels into a first set and a second set;

initializing the first set to a base value;

comparing the first set to the second set;

determining a helical artifact index (HAI); and

visually conveying the HAI.

39. (New) The method of claim 38 wherein the step of partitioning includes the step of generating a mask from the plurality of pixels.

40. (New) The method of claim 39 wherein the step of generating a mask further comprises the step of identifying a set of pixels within a range of an expected uniform material value.

41. (New) The method of claim 40 wherein the range is ± 40 CT numbers.

42. (New) The method of claim 40 further comprising isolating a region of the plurality of pixels absent visual artifacts.

43. (New) The method of claim 40 further comprising the step of determining a numeric mean of the set of pixels within the range.

44. (New) The method of claim 43 further comprising the step of subtracting the mean from each pixel of the plurality of pixels.

45. (New) The method of claim 40 further comprising steps of:
squaring each pixel of the plurality of pixels;
summing the squared pixels; and
dividing the summation by a mask pixel count.

46. (New) The method of claim 45 further comprising the step of modifying the quotient by a scalar.

47. (New) The method of claim 46 further comprising the step of determining the scalar by statistically correlating trained observers responses to a reconstructed image of the imaging data.

48. (New) The method of claim 46 wherein the step of determining a helical artifact index includes the step of determining a likelihood of artifact presence in the reconstructed image by comparing the modified quotient to an artifact scale.

49. (New) The method of claim 48 wherein the artifact scale has a maximum of ten and a minimum of one.

50. (New) The method of claim 38 further comprising the step of filtering the imaging data with a two-dimensional array.

51. (New) The method of claim 50 wherein the filtering two dimensional array includes a Hanning kernel.

52. (New) The method of claim 50 wherein the filtering two dimensional array has a five by five orientation.

53. (New) The method of claim 38 wherein the base value is a whole number.

54. (New) The method of claim 53 wherein the base value is zero.

55. (New) The method of claim 38 wherein the subject includes a phantom designed to simulate an anatomical region of a patient.

56. (New) The method of claim 38 wherein the step of acquiring the imaging data includes the step of acquiring CT imaging data of the phantom using a CT scanner.

REMARKS

The present application is a divisional of co-pending U.S. Ser. No. 09/682,914. In the parent application, the Examiner made a restriction requirement, and as such, Applicant has filed the present divisional application to seek examination of the claims not elected in the parent case.